

Application No.: 10/635734

Docket No.: IIW-030

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A separator for use in a fuel cell that generates electricity by a reaction between fuel and oxidant, wherein the separator is formed by a porous ~~metal-conductive~~ material which is impregnated with resin, and wherein gas flow passages are formed on a contact surface for contacting with an electrode that is provided in the fuel cell, and a conductive plating is applied on parts where the porous ~~metal-conductive~~ material is exposed in the contact surface, wherein the porous conductive material is a porous metal material or a conductive fiber aggregated material;

wherein the separator further includes a structure retaining part having through openings for supplying the gas flow passages with fluid, and wherein the structure retaining part is continuously formed around the porous metal conductive material by the resin used for impregnation.

2. (Original) A separator for use in a fuel cell according to claim 1, wherein said porous metal material is metal foam.

3. (Currently Amended) A separator for use in a fuel cell according to claim 1, wherein a-the conductive fiber aggregated material is carbon fiber-is used instead of the porous metal.

4. (Currently Amended) A separator for use in a fuel cell according to claim 1, wherein said contact surface is smoothed by machining and thereafter the conductive plating is applied on the parts where the porous ~~metal~~conductive material is exposed.

5. (Currently Amended) A separator for use in a fuel cell according to claim 2, wherein said contact surface is smoothed by machining and thereafter the conductive plating is applied on the parts where the porous ~~metal~~conductive material is exposed and wherein the porous conductive material is the porous metal material.

6. (Currently Amended) A separator for use in a fuel cell according to claim 3, wherein said contact surface is smoothed by machining and thereafter the conductive plating is applied

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on the parts where the porous ~~metal~~conductive material is exposed and wherein the porous conductive material is the conductive fiber aggregated material.

7.—12. (Canceled)

13. (Original) A fuel cell comprising the separator of claim 1.

14. (Original) A fuel cell comprising the separator of claim 2.

15. (Original) A fuel cell comprising the separator of claim 3.

16. (Original) A fuel cell comprising the separator of claim 4.

17. (Canceled)

18. (Currently Amended) A method of producing a separator for use in a fuel cell, comprising the steps of:

forming a separator by a material wherein cavities of a porous ~~metal~~conductive material are impregnated with resin;

forming gas flow passages on a contact surface for contacting with an electrode that is provided in the fuel cell;

smoothing the contact surface by machining to provide a smooth surface with the porous ~~metal~~conductive material exposed in the contact surface; and

applying conductive plating on exposed parts of the porous ~~metal~~conductive material, wherein the porous conductive material is a porous metal material or conductive fiber aggregated material,

wherein the separator further includes a structure retaining part having through openings for supplying the gas flow passages with fluid, and wherein the structure retaining part is continuously formed around the porous metal conductive material by the resin used for impregnation.

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19. (Currently Amended) A method of producing a separator for use in a fuel cell according to claim 18, wherein the porous conductive material is the porous metal material and said the porous metal material is metal foam.

20. (Currently Amended) A method of producing a separator for use in a fuel cell according to claim 2018, wherein the porous conductive material is a the conductive fiber aggregated material is used instead of the porous metal.

21. (New) A method of producing a separator for use in a fuel cell according to claim 18, wherein the conductive plating is applied only on parts where the porous conductive material is exposed.

22. (New) A separator for use in a fuel cell according to claim 1, wherein the conductive plating is applied only on parts where the porous conductive material is exposed.